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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/824,964

04/03/2001

Josh D. Collier

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01/14/2005

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EXAMINER

VINCENT, DAVID ROBERT

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/824,964

Applicant(s)

COLLIER ET AL.

Examiner

David R Vincent

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-11, 13-15, 17, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) 6, 12, 16, 18 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/11/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Shah (US 6,347,337).

As shown in Figs. 1-12, especially Figs. 9-12 and disclosed at cols. 11-19, Shah discloses a method for triggering (Figs. 9-12) the transmission of a flow control packet (FCP, data packet, col. 2, lines 2-6) between a receiving device (second end point,

Art Unit: 2661

col. 7, lines 53-57) and a sending device/source (first end point/socket, col. 18, lines 56-63) comprising monitoring a threshold (col. 13, lines 1-50; col. 14, lines 22-30) for free space in a buffer, sending an FCP indicating the amount of free space (len, col. 12, line 13; col. 13, lines 20-36), to the source (sender receiving a credit update, cols. 11-19, e.g., col. 13, lines 2-5), a predetermined level (e.g., col. 13, lines 2-5), buffer falls below a bottom threshold (e.g., low water mark, col. 13, lines 2-36), the threshold is relative to a variable free space amount (e.g., col. 8, lines 49-51; col. 13, lines 27-65), setting the variable free space to the lowest level (e.g., zero during congestion, col. 12, lines 37-45; col. 13, lines 2-8; also Shah disclose using TCP which inherently uses advertised windows which indicate the amount of available buffer space at the receiver, slow start, and congestion avoidance, cols. 5-6), and recording the amount of free space (cols. 15-16, especially col. 15, lines 26-65, or col. 16, lines 31-41), as specified in claims 1-5, 15, 17, and 20-21.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2661

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7-12, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah as set forth above, in view of Stallings ATM textbook.

However, although Shah discloses using TCP, Shah fails to particularly call for using clock cycles to send or receive the flow control packets, or FIFO buffers.

Stallings teaches that it is well known to send flow control packets (e.g., fixed length packets called cells or RM cells) when dealing with congestion or analyzing buffer availability (see e.g., RM cell comprising queue length, pg. 371; forward/backward RM cells being sent/received every 32 packets, pgs. 368-369; monitoring free space in a buffer and using FIFOs, e.g., pg. 373 under Binary Feedback Schemes). Using ATM's ABR and RM cells along with the TCP is well known (see pg. 88).

It would have been obvious to send FCPs at least once every predetermined number of clock cycles so that the source, destination or both would expect the FCPs at a certain time and may know that congestion had gotten worse or that a failure was

Art Unit: 2661

experienced between the source and destination if the FCP was not received on time.

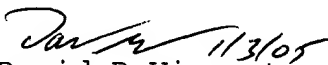
5. Claims 6, 12, 16, 18-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R Vincent whose telephone number is 571 272 3080. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571 272 3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David R Vincent
Primary Examiner
Art Unit 2661

January 3, 2005